

Appln. No. 09/736,069  
Amdt. dated November 2, 2005  
Reply to Office Action dated September 20, 2005

### R E M A R K S / A R G U M E N T S

Reconsideration of the present application, as amended, is respectfully requested.

The September 20, 2005 Final Office Action and the Examiner's comments have been carefully considered. In response, claims are amended and remarks are set forth below in a sincere effort to place the present application in form for allowance. The amendments are supported by the application as originally filed. Therefore, no new matter is added.

Inasmuch as the present Amendment raises no new issues for consideration, and, in any event, places the present application in condition for allowance or in better condition for consideration on appeal, its entry under the provisions of 37 CFR 1.116 are respectfully requested.

### CLAIM OBJECTION

In the Office Action the Examiner indicates that claim 1 is objected to because of an informality. In response, claim 1 is amended in a sincere effort to overcome the objection thereto. In view of the amendment of claim 1, reconsideration and withdrawal of the object to claim 1 are respectfully requested.

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#### SPECIFICATION

The specification is amended to correct an inadvertent typographical error regarding a reference numeral used on page 5, line 9. No new matter is added and the amendment is clearly supported by the application as filed.

#### PRIOR ART REJECTIONS

In the Office Action claims 1, 4, 8 and 11-15 are rejected under 35 USC 103 as being unpatentable over U.S. Patent Publication No. US 2001/0047431 (Eytchison) in view USP 6,523,696 (Saito et al.).

In response, Applicant respectfully states that Eytchison has a publication date of November 29, 2001 and a filing date of February 8, 2001. Eytchison also claims priority from U.S. Provisional Patent Application No. 60/181,406 filed February 9, 2000, a copy of which is transmitted herewith.

In rejecting the claims of the present application the Examiner has relied upon the fact that Eytchison claims priority from Provisional Application No. 60/181,406 so that the Eytchison publication can be a reference against the present application which was filed December 13, 2000 and which claims priority from Provisional Application No. 60/184,310 filed February 23, 2000. Provisional Application No. 60/184,310 filed February 23, 2000 fully supports the present claimed invention set forth in the

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pending claims. Therefore, the present application is entitled to claim priority from the provisional application and is entitled to the earlier filing date. In formulating the prior art rejection the Examiner has relied upon the disclosure provided by U.S. Patent Publication No. US 2001/0047431 (Eytchison) and specifically refers to Figs. 6 and 7 and the corresponding written description. It is respectfully pointed out to the Examiner that the provisional application (U.S. Provisional Application No. 60/181,406) upon which Eytchison claims priority does not support the disclosure relied upon by the Examiner in formulating the rejection of the claims set forth in the September 20, 2005 Office Action. Since Provisional Application No. 60/181,406 does not support the disclosure upon which the Examiner relies, the rejection of claims 1, 4, 8 and 11-15 under 35 USC 103 based upon Eytchison is not proper, and if the Examiner wishes to maintain the rejection, the Examiner must find a new reference to replace Eytchison.

In view of the foregoing, reconsideration and withdrawal of the rejection of claims 1, 4, 8 and 11-15 under 35 USC 103 are respectfully requested.

\* \* \* \* \*

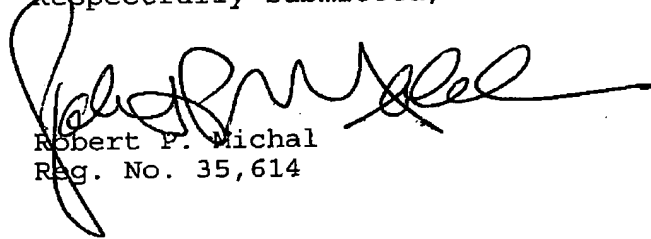
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Entry of this Amendment under the provisions of 37 CFR 1.116, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner disagrees with any of the foregoing, the Examiner is respectfully requested to point out where there is support for a contrary view.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



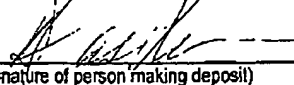
Robert P. Michal  
Reg. No. 35,614

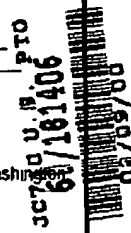
November 2, 2005

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Encl.: Copy of U.S. Provisional Appln. No. 60/181,406



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I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington D.C. 20231.	
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## PROVISIONAL APPLICATION FOR PATENT COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53 (b)(2).

Docket Number **50P3812**

### INVENTOR /APPLICANT

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### TITLE OF THE INVENTION (280 characters max)

**HAVi - VHN Bridge Solution**

### ENCLOSED APPLICATION PARTS (check all that apply)

<input checked="" type="checkbox"/> Specification	Number of Pages <u>14</u>	<input type="checkbox"/> Small Entity Statement
<input type="checkbox"/> Drawing(s)	Number of sheets <u>    </u>	<input type="checkbox"/> Other (specify) <u>    </u>

### METHOD OF PAYMENT (check one)

☐ A check or money order is enclosed to cover the Provisional filing fees

☒ The Commissioner is hereby authorized to charge filing fees and credit Deposit Account Number: 19-3195

PROVISIONAL  
FILING FEE  
AMOUNT \$ 150.00


The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.

☒ No

☐ Yes, the name of the U.S. Government agency and the Government contract number are:     

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Respectfully submitted,

  
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Date FEBRUARY 9, 2000

## PROVISIONAL APPLICATION FOR PATENT FILING ONLY

PROV. APPLICATION FNL. 02/09/00

50P3812

**PROVISIONAL APPLICATION**

**HAVi / VHN Bridge Solution**

Inventor

Edward B. Eytchison

**DETAILED DESCRIPTION OF THE INVENTION**

(See attached pages)



# Necessity for HAVi/VHN Integration

- Heterogeneous networking technologies will continue to exist both in and outside the home
- Consumers will benefit by the integration of HAVi and non-HAVi networks which enables diverse applications to control all aspects of the home:
  - HAVi devices can access and control activities outside the home (HAVi Organization and UP&P Consortium are working together to make this happen)
  - A printer in the non-HAVi network could be used to print a AV content from a AV-HDD
  - A device in the automation network can tell a HAVi device when to power on/off
  - Non-HAVi devices bridging to a HAVi network could send video from a security camera to a HAVi AV storage device



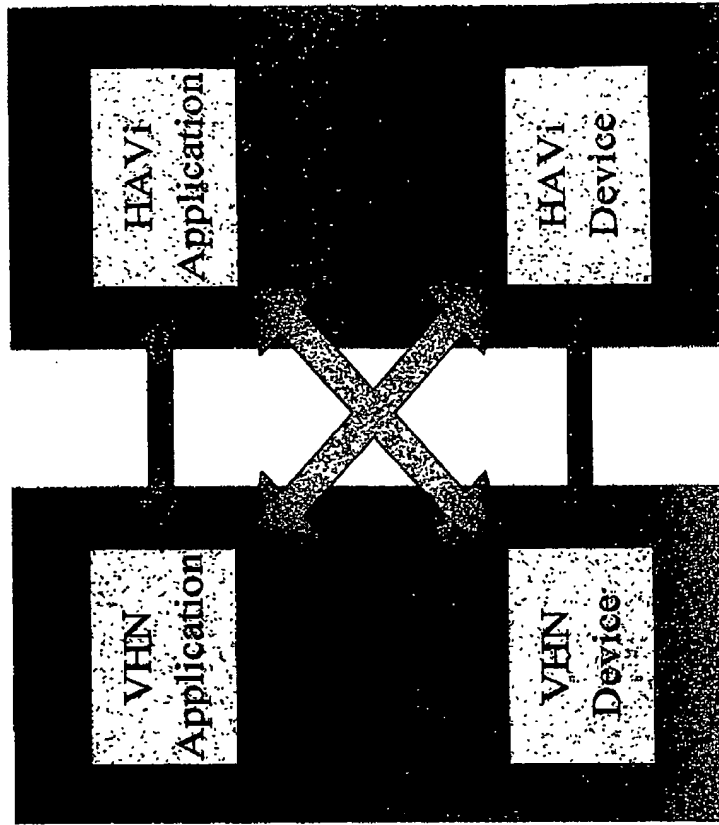


## Considerations For Moving Forward (2)

- Integrating HAVi and VHN networks must prove cost effective and non-intrusive to average consumers
- Installation cost must be minimized and intuitive (no more difficult than connecting a VCR to a TV)
- Significant command and control aspects of heterogeneous components should be accessible to/from HAVi devices
- User configurations should not be any more difficult than programming a VCR (most consumers have a problem doing this)

# Goals - Complete Interoperability

- Any HA Vi network element can talk to any VHN network entity and vice versa
- Allow VHN Device to:
    - Talk to HA Vi device
    - Talk to HA Vi application
  - Allow HA Vi Device to:
    - Talk to VHN device
    - Talk to VHN application
  - Allow VHN Application to:
    - Talk to HA Vi application
    - Talk to HA Vi device
  - Allow HA Vi Application to:
    - Talk to VHN application
    - Talk to VHN device
- 
- The diagram illustrates the bidirectional communication between VHN Application and VHN Device. It consists of a black rectangular background. On the left, there is a white rectangular box with the text 'VHN Application'. On the right, there is a white rectangular box with the text 'VHN Device'. A thick, black, double-headed arrow points from the 'VHN Application' box to the 'VHN Device' box, indicating that both can communicate with each other.

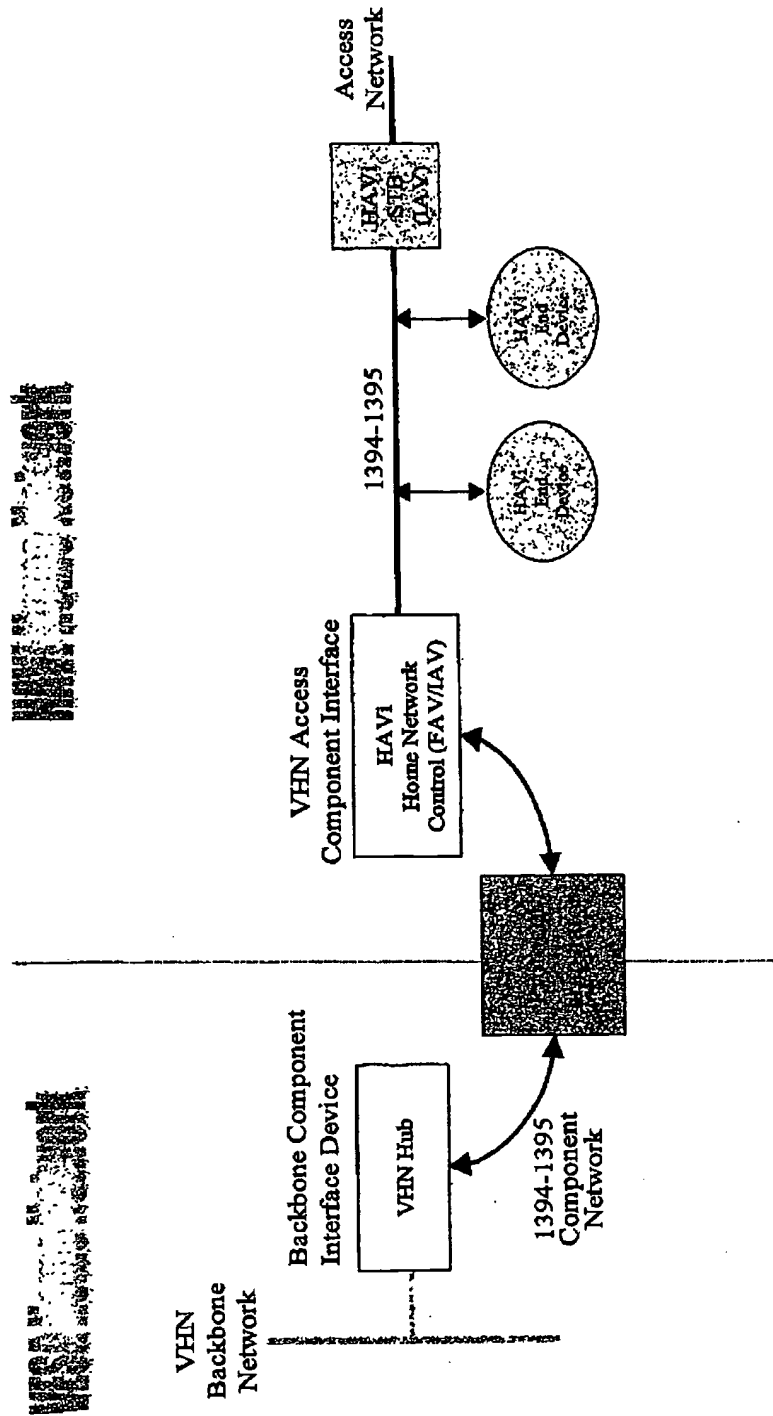


# Minimum HAVi Elements Required for Bridging

- **Messaging System**
  - Mappings between HAVi messages (IEC 61883.1 FCM) to XML RPC
- **Registry**
  - Mapping between HAVi discovery methods and attributes to HNB&IR
- **HAVi DCM/FCM**
  - Mapping between HAVi components and VHN devices
- **Event Manager**
  - Mapping between HAVi events and VHN events
- **CMM**
  - Mapping between GUIDs and IP addresses
- **DDI/L2 UI**
  - Mapping between HAVi UI and HTML

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# Abstract view of a VHN & HAVi Network

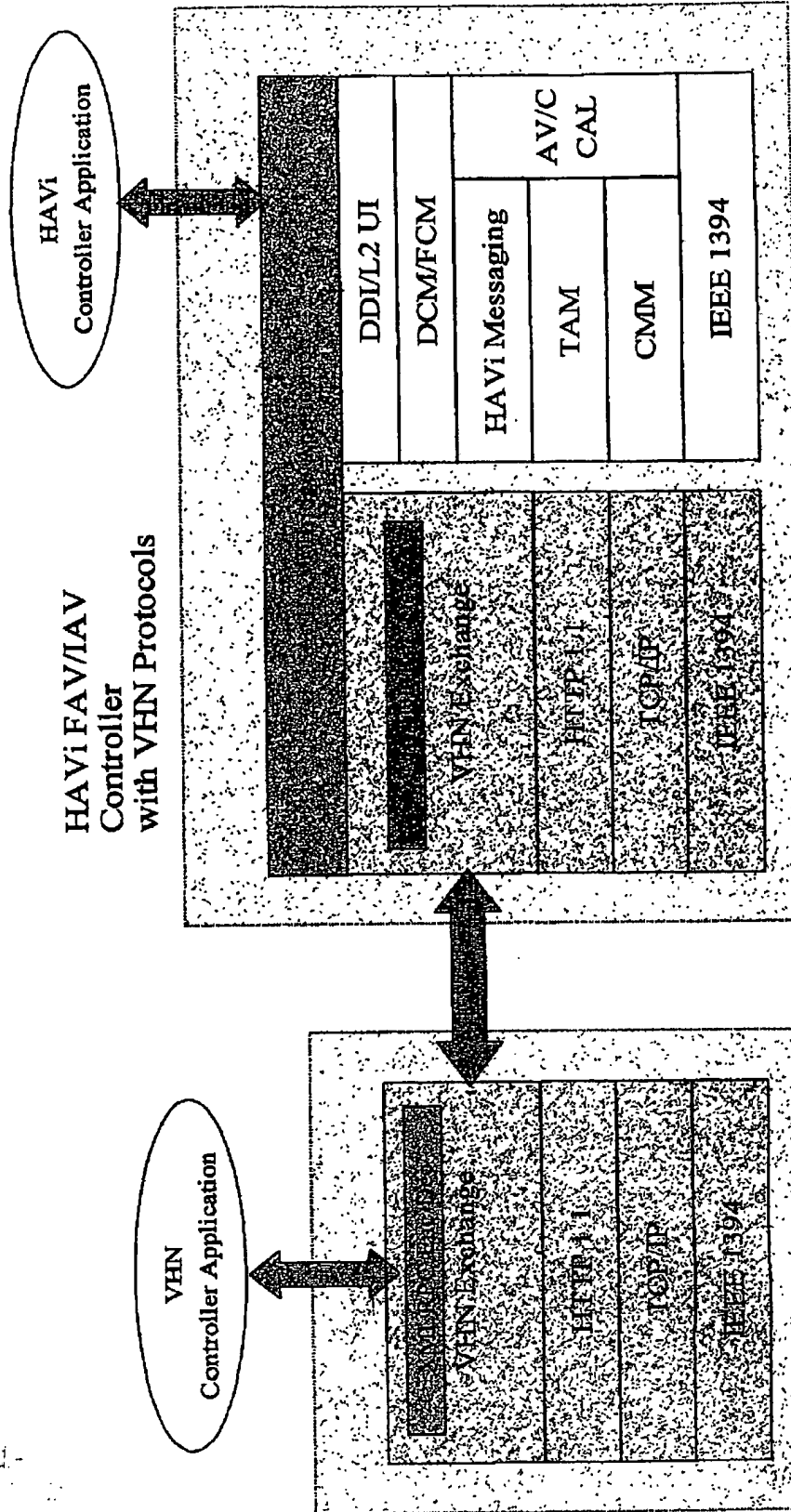


# HAVi/VHN Gateway Initialization Process

- When a VHN device is detected the HAVi Gateway (or a HAVi Application Module) will:
  - Load VHN Code Unit
  - Assign IP address to all HAVi devices using VHN's DHCP Server or use an autonomous address allocation
  - Map HAVi network address (1394 bus ID) to HAVi preferred name or logical bus name
  - Update the HNB&IR to reflect all HAVi services and events
    - add either a new HN level or device interface level
    - Add XML interface to all HAVi devices
    - Translate DCM/FCM methods and attributes to XML interface

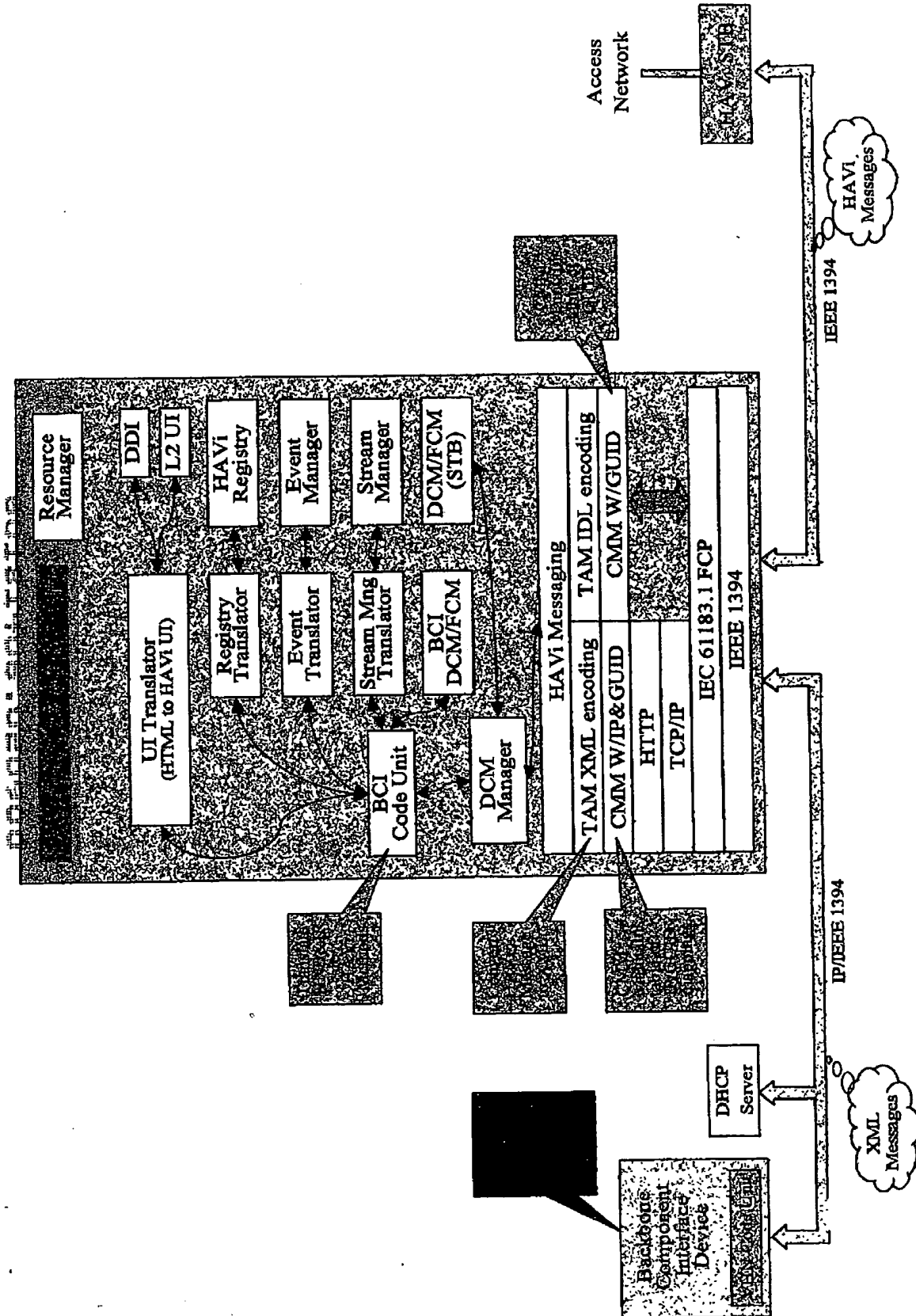
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# HAVi/VHN Bridge Protocol Stack











# HAVi App Booting Sequence

- A HAVi Proxy Application will:
  - Call upon DHCP Server to get IP address
    - IP address cross referenced to SEID and GUID
  - Locate HNB by sending broadcast messages
  - Register itself with local HNB
    - IP address, device model, user configurable device name, etc
  - Create a “unique device name”
  - Map HAVi events to XML events
  - Map callbacks to HNB&IR
  - Map HAVi L1/L2 UI to HTML

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